Name: **Watershed Lab** Period:

Introduction:

During a rainstorm, the water that flows over the land as runoff collects in channels such as streams, canals, rivers, etc. The land area that drains water is called a watershed.

Areas of higher elevation called divides separate watersheds from each other. Water flows through a series of channels and eventually it collects in a wide river that empties into a body of water such as an ocean or lake.

From an aerial view, drainage patterns in a watershed resemble a network similar to the branching pattern of a tree. Tributaries, similar to twigs and small branches, flow into streams, the main branches of the tree. Streams eventually empty into a large river, comparable to the trunk. Like other branching patterns (e.g. road maps, veins in a leaf, the human nervous system), the drainage pattern consists of smaller channels merging into larger ones.

Procedure:

* 1. 1. Crumple sheet of paper and then partially smooth it out being careful to leave some ridges.
  2. 2. Using markers, color along the crease using different colors. The colors will represent pollutants such as fertilizers, pesticides, litter, pet waste, etc.
  3. 3. Lay sheet of paper in pan and shape it so it looks like a watershed.
  4. 4. Spray papers with water and watch colors begin to flow.

Analysis: (to be completed on notebook paper)

1. Explain how drainage patterns are similar to the branching of a tree.
2. Describe what happened at the lowest and highest points in your lab-based watershed.
3. Did the different “pollutants” mix together? Explain.

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Analysis: (to be completed on notebook paper)

1. Explain how drainage patterns are similar to the branching of a tree.

**Drainage patterns consist of smaller channels merging into larger ones. Tributaries flow into streams, which eventually flow into rivers and further into the ocean. Small twigs/branches flow into the main tree branches which then head into the trunk.**

1. Describe what happened at the lowest and highest point in your lab-based watershed.

**Water starts at the highest elevations and then pours into the lowest ones. At the start (highest points), you will only see the original color flowing in, but as the flow heads downward, the colors begin to mix, eventually heading towards the absolute bottom of the watershed where it will probably turn black.**

1. Did the different “pollutants” mix together? Explain.

**The colors absolutely mixed together as the drainage patterns began branching, and at the very end, biggest section of the watershed, all the colors mixed. This showcases what would happen with the pollutants. As water runs downstream, the pollutants become more aggressive and filter into the larger picture (bay, ocean).**